



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,951	02/15/2002	Larry L. Harris	011247.000003	3406

27644 7590 05/18/2004  
THOMPSON & KNIGHT L.L.P.  
PATENT PROSECUTION DEPARTMENT  
98 SAN JACINTO BLVD., SUITE 1900  
AUSTIN, TX 78701

EXAMINER	
NGUYEN, VINH P	
ART UNIT	PAPER NUMBER
2829	

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/076,951

Applicant(s)

HARRIS, LARRY L.

Examiner

VINH P NGUYEN

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 March 2004.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.  
4a) Of the above claim(s) 21, 22 and 25-31 is/are withdrawn from consideration.  
5) ☒ Claim(s) 16-19 and 32-36 is/are allowed.  
6) ☒ Claim(s) 1-15 and 23 is/are rejected.  
7) ☒ Claim(s) 24 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 0503  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

1. In the previous office action mailed on 01/29/04, the species in paragraph 1 should be species of figure 4A, species of figure 5 and species of figure 6.
2. Applicant's election without traverse of species of figure 4A in Paper No. 0304 is acknowledged.
3. Claims 21-22, 25-31 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 0304.
4. Claims 2-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 2 and , it is unclear how and when the pilot channel is considered as AC coupled.

In claim 3, it is unclear how and when the data channel is considered as DC coupled.

The dependent claims not specifically address share the same indefiniteness as they depend from rejected base claims.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2 and 23 (insofar as understood) are rejected under 35 U.S.C. 102(b) as being anticipated by Petersdorf (pat # 4,395,677).

As to claims 1 and 23, Petersdorf discloses in figure 1 an apparatus having a first hall effect element (H1) and a second Hall effect element (H2) connected to each other. It is noted that the term pilot channel, data channel, first AC coupled and DC coupled are not given any patentable weight since the significant functions of those channels are not recited in the scope of claim.

As to claim 2, it appears that one of the hall effect element is a AC coupled since the band pass filter (60) is used at the output of an instrumentation amplifier (54).

7. Claims 16-19 and 32-36 are allowable since the prior art does not disclose a voltage isolation buffer having an AC coupled Hall effect sensor, a DC coupled Hall effect sensor and means for calibration operatively coupled to the AC Hall effect sensor and the DC Hall effect sensor for receiving information from the AC hall effect sensor and for calibrating the DC hall effect sensor.

8. Claim 24 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art does not disclose "a means for calibration" coupled to the Dc coupled Hall effect sensor.

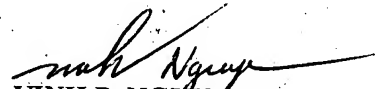
Art Unit: 2829

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gu (pat # 5,811,965) discloses DC and AC current sensor having a minor loop operated current transformer.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH P NGUYEN whose telephone number is (521)272-1964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
VINH P. NGUYEN  
PRIMARY EXAMINER  
ART UNIT 2829

04/29/04